



**CONESTOGA-ROVERS  
& ASSOCIATES**

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March 22, 2010

Reference No. 056393

Mr. Michael Berkoff  
Remedial Project Manager  
U.S. Environmental Protection Agency - Region V  
Superfund Division, Remedial Response Section #2  
77 West Jackson Boulevard (SR - 6J)  
Chicago, Illinois 60604 - 3590

US EPA RECORDS CENTER REGION 5



Dear Mr. Berkoff:

Re: Responses to U.S. EPA Comments  
12th Street Landfill Operable Unit No. 4  
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Allegan and Kalamazoo County

Conestoga-Rovers & Associates (CRA) has prepared this letter on behalf of Weyerhaeuser Company (Weyerhaeuser) in response to the February 18, 2010 conditional approval provided by the United States Environmental Protection Agency (U.S. EPA) on the January 2010 Draft Final Remedial Design. Three hard copies of the revised Final Design Report submittal are attached incorporating the U.S. EPA's comments, which formed the basis for the conditional approval.

For ease of review, each comment for which the U.S. EPA requested clarification/revision is listed below, followed by CRA's response.

#### **SPECIFIC COMMENTS**

##### **EPA Comment #1**

*Section 3.3, last paragraph. The design conclusions presented in this section do not agree with the design presented in Section 6 (there are no provisions for upgrade to an active gas collection system). Please revise.*

##### **Response**

The last four sentences of the referenced paragraph have been removed from the final report as the pre-design gas study showed that a passive gas venting system would be sufficient.





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**EPA Comment #2**

*Section 4.2. This section should be modified to present and be consistent with the design outlined in Section 6.*

**Response**

The contents of Section 4.2 are a direct quote from the Record of Decision (ROD) and as such cannot be changed. For clarity, the following has been added to the end of this section:

"Note: Due to implementation of Emergency Actions, as discussed in Section 4.3 below, the final selected remedy is presented in Section 6.0. In addition, the 30 mil PVC geomembrane liner is replaced by an equivalent 40 -mil LLDPE liner and the minimum hydraulic conductivity required for the gas venting layer is  $1 \times 10^{-2}$  cm/sec based on the results of the predesign investigations".

**EPA Comment #3**

*Section 6.3.3 - Please remove all references to 3H:1V slopes.*

**Response**

Two unintentionally remaining references to the alternative 3H:1V slopes have been removed from first and sixth bullets of the construction recommendations presented in Section 6.3.3.

**EPA Comment #4**

*Section 9. The dates and schedule presented in the text need to be updated to the current construction schedule.*

**Response**

The final report has been corrected to state that construction will occur from approximately May 2010 through October 2010. Installation of the groundwater monitoring wells and gas probes will be installed towards the end of this construction period. Figure 9-1 has also been updated to provide a more current schedule.



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**EPA Comment #5**

*Figure 3-2. This figure should be revised to reflect the grades shown in the design drawings.*

**Response**

A new figure (replacing the previous RMT figure) has been generated using the final contours from the design drawings.

**EPA Comment #6**

*Appendix A, Section 4.2, last paragraph. The design conclusions presented in this section are not consistent with the design presented in Section 6. Revision required.*

**Response**

The last two sentences of the referenced paragraph have been removed from the final report, as the pre-design gas study showed that a passive gas venting system would be sufficient.

**EPA Comment #7**

*Appendix A, Section 3, second to last bullet. This bullet point does not agree with the proposed design. Revision required.*

**Response**

The last sentence of the referenced bullet point has been removed from the final report, as the pre-design gas study showed that a passive gas venting system would be sufficient.

**EPA Comment #8**

*Appendix A, Appendix E. The calculations in these sections reflect a final cover grading that is different than the one proposed; please add text to this section stating the difference and the impact, if any, on the conclusions presented in the calculations.*

**Response**

The final design does not require the fifth lift (15' to 20') of paper residuals. As such, an asterisk has been added to the table in assumption #8 and a note has been added to the bottom of page 3



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stating that, "Based on the final design grading plan, Lift 5 will not be required unless additional off-site excavation is required following verification sampling". In addition, a summary note has been added to the bottom of the last page of the calculations (page 4), which states that, "These calculations are based on the preliminary design grading plan. As the final design resulted in a lower total fill height, these calculations are conservative in nature and final implementation should result in less settlement and less leachate generation than indicated. As such, the conclusions remain unchanged

**EPA Comment #9**

*Appendix C - The Construction Quality Assurance Plan does not contain the construction recommendations contained in the text of section 6.0 and in the revised specifications. Is the intent to include these additional recommendations and testing requirements as an addendum or a reworked CQA plan under the provisions discussed in Section 3.1 in the CQA Plan?*

**Response**

An addendum to the CQA Plan containing the construction recommendations from the final report has been prepared and is included with the attached Final Design Report submittal.

**EPA Comment #10**

*Appendix F - Specification 2311 - Waste Consolidation, Section 3.3. This specification does not include the construction recommendations regarding excavations greater than 10 feet in depth outlined in Appendix B.*

**Response**

The second bullet of the construction recommendations in Appendix B regarding excavations approaching 10 feet in depth has been added to Part 3.3 of the Waste Consolidation specification (Section 02311).

**EPA Comment #11**

*Appendix F - Specification 2315 - Excavation. A note that Excavation of Waste Materials is covered in Specification 2311 should be included here.*



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Response

Specification 02311: Waste Consolidation includes excavation of paper residuals, loading and hauling of excavated material, and placement and compaction on the landfill; therefore, the old Specification 02315: Waste Excavation which only included excavation of waste is no longer required. Any instructions contained in the old Waste Excavation specification that were not included in the Waste Consolidation specification have been added to this replacement specification.

Should you have any questions on the above, please do not hesitate to contact us.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Gregory A. Carli, P. E.

CRH/sc/1

Encl.

c.c.: J. Saric (U.S. EPA) - electronic  
L. Kirby-Miles (U.S. EPA) - electronic  
S. Chummar (U.S. EPA) - electronic  
T. Prendiville (U.S. EPA) - electronic  
S. Borries (U.S. EPA) - electronic  
R. Frey (U.S. EPA) - electronic  
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